ABOUT US

Who We Are

The **Secure Data Sharing Platform for Controlled Access** is an advanced, research-driven security solution designed to protect sensitive information, regulate user privileges, and ensure transparent digital operations within organizational environments. Developed as part of an academic cybersecurity project, the platform demonstrates how modern enterprises safeguard internal data using intelligent access control, centralized monitoring, and immutable audit mechanisms.

Our system brings together concepts from access control models, hardware-assisted security, network monitoring, and AI-based anomaly detection to create a compact yet powerful solution suitable for organizations of all sizes.

Our Purpose

We aim to provide a **secure, reliable, and controlled data-sharing environment** where every user interaction is authenticated, monitored, and recorded.
The platform ensures that:

- Users access only what they are authorized to access.
- Sensitive data remains protected from misuse, insider threats, and unauthorized modifications.
- All activities are transparently logged for accountability and audits.
- AI-driven insights help detect suspicious behavior in real-time.

Our purpose is aligned with the growing need for organizations to enforce **zero-trust principles**, strengthen internal security, and prevent data leakage or privilege abuse.

What We Do

We provide a streamlined and secure system for sharing and accessing data by combining:

1. Role-Based Access Control (RBAC)

A structured, four-level privilege model—Owner, Supervisor, Manager, and Employee—ensures users can only interact with information relevant to their responsibilities.

2. Hardware-Backed Gateway Monitoring

All traffic and data interactions pass through a centralized gateway device (Raspberry Pi / Jetson Nano), ensuring that every request is validated, logged, and monitored in real time.

3. Immutable Audit Logging

Every user action is recorded in tamper-proof logs to provide reliable forensic evidence and support compliance requirements.

4. AI-Based Anomaly Detection

A lightweight machine learning module identifies suspicious behaviors such as unusual access patterns, excessive login attempts, or unauthorized privilege escalation.

5. Secure, Localized Architecture

The entire platform operates offline within a controlled network environment, ensuring complete data sovereignty without reliance on cloud services.

Our Vision

To create a **trusted, scalable, and intelligent security model** that demonstrates how modern enterprises can achieve:

- Strong access governance
- Complete visibility into internal activities
- Real-time detection of threats
- Tamper-proof audit trails
- Affordable deployment with edge computing hardware

We envision empowering organizations, educational institutions, and research environments with a system that reflects real-world cybersecurity practices in an accessible and demonstrable form.

Our Values

Security First – We prioritize confidentiality, integrity, and availability in every layer of the system.
Transparency – All actions are logged and traceable to promote accountability.
Innovation – We integrate modern concepts like AI detection and immutable logging to stay future-ready.
Scalability – The architecture allows easy expansion and integration of advanced modules.
Accessibility – Designed to be cost-effective and deployable even in resource-limited environments.

Why Choose Our Platform

- Provides enterprise-grade security features using affordable hardware.
- Offers real-time monitoring and intelligent threat detection.
- Ensures complete role-based restriction of data access.
- Eliminates log tampering through immutable structures.
- Operates fully offline, making it ideal for secure facilities and academic setups.
- Serves as a functional demonstration of modern cybersecurity principles.

Our Team

This platform has been designed and developed by:

- **Karthik K M**
- **Lokesh M**
- **Anirudha G Kulkarni**
- **Phillip Immanuel Thomas**